



SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANT: Ravnikar et al.
- (ii) TITLE OF INVENTION: Thioredoxin/Heterologous Protein Bacterial Expression System
- (iii) NUMBER OF SEQUENCES: 14
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Schering-Plough Corporation
 - (B) STREET: 2000 Galloping Hill Road
 - (C) CITY: Kenilworth
 - (D) STATE: New Jersey
 - (E) COUNTRY: U.S.A.
 - (F) ZIP : 07033-0530
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: diskette
 - (B) COMPUTER: Power Macintosh 7600/120
 - (C) OPERATING SYSTEM: Macintosh 7.5.3
 - (D) SOFTWARE: Microsoft Word 6.0
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: US 08/846,606
 - (B) FILING DATE: 30-APR-1997
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: US 60/011,606
 - (B) FILING DATE: 30-APR-1996
- (viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: Thampoe, Immac J.
 - (B) REGISTRATION NUMBER: 36,322
 - (C) REFERENCE DOCKET NUMBER: JB0600Q

(2) INFORMATION FOR SEQ ID NO:1

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 30 bases
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1

CCTGTGGAGT TACATATGAG CGATAAAATT 30

(2) INFORMATION FOR SEQ ID NO:2

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 47 bases
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2

GCACCCAAACA TGCAAGGATC CTTACGCCAG ATTAGCATCG AGGAAC 47

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(2) INFORMATION FOR SEQ ID NO:3

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 336 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3

| | |
|---|-----|
| ATGAGCGATA AAATTATTCA CCTGACTGAC GACAGTTTG ACACGGATGT | 50 |
| ACTCAAAGCG GACGGGGCGA TCCTCGTCGA TTTCTGGCA GAGTGGTGCG | 100 |
| GTCCGTGCAA AATGATCGCC CCGATTCTGG ATGAAATCGC TGACGAATAT | 150 |
| CAGGGCAAAAC TGACCGTTGC AAAACTGAAC ATCGATCAA ACCCTGGCAC | 200 |
| TGCGCCGAAA TATGGCATCC GTGGTATCCC GACTCTGCTG CTGTTCAAAA | 250 |
| ACGGTGAAGT GGC GGCAACC AAAGTGGGTG CACTGTCTAA AGGTCAGTTG | 300 |
| AAAGAGTTCC TCGATGCTAA TCTGGCGTAA GGATCC | 336 |

(2) INFORMATION FOR SEQ ID NO:4

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 336 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4

| | |
|---|-----|
| ATGAGCGATA AAATTATTCA CCTGACTGAC GACAGTTTG ACACGGATGT | 50 |
| ACTCAAAGCG GACGGGGCGA TCCTCGTCGA TTTCTGGCA GAGTGGTGCG | 100 |
| GTCCGTGCAA AATGATCGCC CCGATTCTGG ATGAAATCGC TGACGAATAT | 150 |
| CAGGGCAAAAC TGACCGTTGC AAAACTGAAC ATCGATCAA ACCCTGGCAC | 200 |
| TGCGCCGAAA TATGGCATCC GTGGTATCCC GACTCTGCTG CTGTTCAAAA | 250 |
| ACGGTGAAGT GGC GGCAACC AAAGTGGGTG CACTGTCTAA AGGTCAGTTG | 300 |
| AAAGAGTTCC TCGAGGCTAA TCTGGCGTAA GGATCC | 336 |

(2) INFORMATION FOR SEQ ID NO:5

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 81 bases pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5

| | |
|--|----|
| GATAATATTC TGGCTGGTTC TGGTTCTGGT GATGACGATG ACAAGGGTCC | 50 |
| TGTTCCGCCG TCTACCGCTC TGCCTGAGCT C | 81 |

(2) INFORMATION FOR SEQ ID NO:6

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 amino acids
- (B) TYPE: amino acid

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Asn | Asn | Leu | Ala | Gly | Ser | Gly | Ser | Gly | Asp | Asp | Asp | Asp | Lys |
| 1 | | | | | 5 | | | | | 10 | | | | 15 |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| Gly | Pro | Val | Pro | Pro | Ser | Thr | Ala | Leu | Arg | Glu | Leu | | 27 |
| | | | | | | | | | | | | 20 | 25 |

(2) INFORMATION FOR SEQ ID NO:7

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 52 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7

| | | | | | |
|------------|------------|------------|------------|------------|----|
| GAAGGAGGCT | GATTAAATGG | GTCCGGTTCC | GCCGTCTACC | GCTCTGGAGC | 50 |
| TC | | | | | 52 |

(2) INFORMATION FOR SEQ ID NO:8

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8

| | | |
|------------|---------|----|
| AAGGAGGCTG | ATTAATG | 18 |
|------------|---------|----|

(2) INFORMATION FOR SEQ ID NO:9

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9

| | | |
|------------|---------|----|
| AAGGAGGCTG | ATTAATG | 17 |
|------------|---------|----|

(2) INFORMATION FOR SEQ ID NO:10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10

AAGGAGGTTT AATG 14

(2) INFORMATION FOR SEQ ID NO:11

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6 amino acids
- (B) TYPE: amino acid

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11

Leu Asp Ala Asn Leu Ala 6
1 5

(2) INFORMATION FOR SEQ ID NO:12

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12

CTCGATGCTA ATCTGGCGTA A 21

(2) INFORMATION FOR SEQ ID NO:13

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 bases
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13

CTCGAGGCTA ATCTGGCGTA A 21

(2) INFORMATION FOR SEQ ID NO:14

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6 amino acids
- (B) TYPE: amino acid

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14

Leu Glu Ala Asn Leu Ala 6
1 5